In the Claims

Claims 1-19 canceled

20. (Amended) An optical scanner for optically scanning a bar code, said optical scanner comprising:

a housing;

a first scanning system, housed in said housing, for emitting a first scanning beam which passes upwardly through a horizontally-arranged first surface area on said housing, the first scanning beam being focused at a first focal position at a distance from the first surface area and moving in a first scanning pattern, the first scanning beam suitable for optically scanning a first type of bar code; and

a second scanning system, housed in said housing, for emitting a second scanning beam which passes sidewardly through a vertically-arranged second surface area on said housing, the second surface area being disposed laterally and to one side from the first surface area, the second scanning beam being focused at a second focal position at a distance from the second surface area and moving in a second scanning pattern, the distance from the first focal position to the first surface area being different than the distance from the second focal position to the second surface area.

21. (Amended) An optical scanner for optically scanning a bar code, said optical scanner comprising:

a housing;

a first scanning system, housed in said housing, for emitting a first scanning pattern sidewardly through a first predetermined surface of said housing;

a second scanning system, housed in said housing, for emitting a second scanning pattern upwardly through a second predetermined surface of said housing, wherein a scanning line included in the second scanning pattern is longer than a scanning line included in the first scanning pattern.

22. (Amended) An optical scanner for optically scanning, comprising:

a housing which includes at least one window, the housing having first and second surface areas which are different from each other, wherein one of the first and second surface areas is oriented generally horizontally and the other is oriented generally vertically;

a first scanning system, housed in the housing, for emitting a scanning beam which passes through the first surface area of the housing and forms a cross-line pattern; and

a second scanning system, housed in the housing, for emitting a scanning beam which passes through the second surface area of the housing and forms a line pattern on the second surface area.

23. (Amended) An optical scanner for optically scanning a bar code, said optical scanner comprising:

a housing having a first area and a second area, one of the first area and the second area being oriented generally horizontally and one of the first area and the second area being oriented generally vertically;

a first scanning system, housed in said housing, for emitting a first scanning pattern which passes through the first area on said housing, the first scanning pattern being focused at a first focal position; and

a second scanning system, housed in said housing, for emitting a second scanning pattern which passes through the second area on said housing, the second area being different from the first area, the second scanning pattern being focused at a second focal position different from the first focal position, wherein a number of scanning lines included in the first scanning pattern is greater than a number of scanning lines included in the second scanning pattern.

24. (Amended) An optical scanner according to Claim 23 wherein the first scanning pattern comprises a plurality of intersecting scan lines and the second scanning pattern comprises a single scan line.

25. A method for scanning optical codes comprising the steps of:

providing a housing with a first window and a second window:

generating a first scanning beam, passing the first scanning beam out through the first window, focusing the first scanning beam at a first focal position at a distance from the first window, and moving the first scanning beam in a first scanning pattern, the first scanning beam suitable for optically scanning a first type of bar code; and

generating a second scanning beam, passing the second scanning beam out through the second window, focusing the second scanning

beam at a second focal position at a distance from the second window, and moving the second scanning beam in a second scanning pattern, the distance from the first focal position to the first window being different than the distance from the second focal position to the second window, the second scanning beam suitable for optically scanning a second type of bar code which is different from the first type of bar code.

26. A method according to Claim 25 further comprising generating the first scan pattern comprised of intersecting scan lines and the second scan pattern comprised of a single scan line.

27. A method according to Claim 25 wherein the first type of bar code comprises bar code labels on items being purchased and the second type of bar code comprises bar codes on coupons.

28. A method for optically scanning comprising the steps of providing a housing with first and second surface areas thereon and which are different from each other, one of the first and second surface areas being oriented generally horizontally and one being oriented generally vertically;

generating a first scan pattern of intersecting scan lines and passing the first scan pattern out through the first surface area; and

generating a second scan pattern and passing the second scan pattern out through the second surface area.

29. A method for scanning optical codes comprising the steps of:

providing a housing with at least a first window;

generating a first scanning beam and focusing the first scanning beam at a first focal distance;

scanning the first scanning beam to produce a first scan pattern of a plurality of intersecting scan lines and passing the first scan pattern out from the housing to scan an item to be read; and

generating a second scanning beam and focusing the second scanning beam at a second focal distance different from the first focal distance;

scanning the second scanning beam to produce a second scan pattern of a single scan line and passing the second scan pattern out from the housing to scan an item to be read.

30. A system for reading optical codes on redemption coupons and reading optical codes on items being purchased in a consumer transaction, comprising:

a data reader including

a housing having a first window oriented generally horizontally and a second window oriented generally vertically,

a rotating scanning mechanism contained within the housing for producing a first scan pattern which is directed through the first window and a second scan pattern which is directed through the second window,

collection optics and decoding software, wherein bar codes on redemption coupons and bar codes on items being

purchased are read by scan patterns produced by the scanning mechanism; and

coupon validation logic which determines whether a redemption coupon being read by the data reader correlates to any of the items being purchased.

31. A system according to Claim 30 further comprising a cash register in communication with the data reader, wherein the coupon validation logic is contained in the cash register.

32. A system according to Claim 30 further comprising

a network of a plurality of data readers;

a computer attached to the network in communication with the data readers, wherein the coupon validation logic is contained in the computer.

33. A system according to Claim 30 wherein the coupon validation logic is contained in the data reader.

34. A system according to Claim 30 further comprising

a network of a plurality of data readers and a plurality of cash registers with a cash register associated with each data reader;

controller software for running the cash registers, wherein the coupon validation logic is contained in the controller software.

35. A system according to Claim 30 wherein the scanning mechanism comprises a polygon mirror.

36. (Previously presented) A system according to Claim 35 wherein the polygon mirror includes four mirror facets.

37. A method according to Claim 28 wherein the housing comprises a fixed unit mountable within a counter top.

38. (Amended) A method for optically scanning comprising the steps of

providing a housing with first and second surface areas thereon and which are different from each other;

generating a first scan pattern of intersecting scan lines and passing the first scan pattern out through the first surface area; and

generating a second scan pattern and passing the second scan pattern out through the second surface area,

wherein the housing comprises a fixed unit mountable within a counter top,

wherein the first surface area comprises a first window oriented generally horizontally and the second surface area comprises a second window oriented generally vertically.

39. A system for reading optical codes on redemption coupons and reading optical codes on items being purchased in a consumer transaction, comprising:

a data reader including

a housing having a first window oriented generally horizontally and a second window oriented generally vertically,

a first scanning system, disposed in the housing, for producing a first scan pattern of a plurality of intersecting scan lines which is directed upwardly through the first window,

a second scanning system, disposed in the housing, for producing a second scan pattern which is directed sidewardly through the second window,

collection optics and decoding software;

coupon validation logic which determines whether a redemption coupon being read by the data reader correlates to any of the items being purchased.

40. A system for reading optical codes on redemption coupons and reading optical codes on items being purchased in a consumer transaction, comprising:

a data reader including (a) a housing having a first window oriented generally horizontally and a second window oriented generally vertically, wherein the data reader produces (1) a first scan pattern of a plurality of intersecting scan lines which is directed upwardly through the first window and (2) a second scan pattern which is directed sidewardly through the second window, and (b) collection optics; and

coupon validation logic which determines whether a redemption coupon being read by the data reader correlates to any of the items being purchased.

41. A system according to Claim 40 further comprising a cash register in communication with the data reader, wherein the coupon validation logic is contained in the cash register.

42. A system according to Claim 40 further comprising

a network of a plurality of data readers;

a computer attached to the network in communication with the data readers, wherein the coupon validation logic is contained in the computer.

43. A system according to Claim 40 wherein the coupon validation logic is contained in the data reader.

44. (New) A system according to Claim 39 further comprising software for decoding both optical codes, wherein the same software is used for decoding both optical codes on redemption coupons and optical codes on items being purchased.

45. (New) A method according to Claim 28 further comprising using optics to produce a cross pattern of multiple scan lines from the second scan pattern.

46. (New) A system for optical reading, comprising

a housing;

a light source generating a light beam;

a scanning element disposed in a path of the light beam;

a plurality of mirrors disposed about the scanning element,

wherein one of the mirrors comprises a movable mirror that is movable between first position and a second position,

wherein with the movable mirror in the first position, the scanning element scans the light beam across the mirrors to generate a first scan pattern and direct it out of the housing,

wherein with the movable mirror in the second position, the scanning element scans the light beam across the mirrors to generate a second scan pattern, different from the first pattern, and direct it out of the housing.